

WISCONSIN GROUNDWATER STANDARDS

AN EXPLANATION OF CHAPTER 160, WIS. STATS.

Wisconsin's Groundwater Standards Law, ch. 160, Wisconsin Statutes, was enacted in May 1984. The law is comprehensive in that it applies to all groundwater in the state and may be utilized by all state agencies in their regulatory programs. The state programs for landfills, hazardous wastes, spills, wastewater, septic tanks, salt storage, fertilizer storage, pesticides, and underground storage tanks must comply with the standards.

Each regulatory agency must identify substances already detected in the groundwater or substances that have a reasonable probability of entering the groundwater that result from activities the agencies regulate. Groundwater protection standards are established for those substances on a two-tiered basis. For each substance identified, an "enforcement standard" and a "preventive action limit" (PAL) will be set. View the current Wisconsin Groundwater Quality Standards at <http://www.legis.state.wi.us/rsb/code/nr/nr140.pdf> on the World Wide Web.

Standards are established for substances of health concern as well as for substances that might cause taste, color, odor, or other "public welfare" concerns. These standards can be found in the last table of the previously mentioned website. The Department of Health and Family Services recommends enforcement standards and preventive action limits for those substances that are determined to be a public health concern. The Department of Natural Resources (DNR) develops standards for those substances considered to be a public, welfare concern. Federal drinking water standards called "Maximum Contaminant Levels" or in their absence other federal numbers are utilized in accordance with a specified methodology. DNR adopts, by rule, all standards for each substance. Once standards are established, each regulatory agency is responsible for ensuring groundwater quality standards are compiled with in its own areas of authority. The first state groundwater standards were established in Chapter NR 140, Wis. Adm. Code, in 1985.

The preventive action limit represents a lesser concentration of the substance than the enforcement standard. The PAL is either 10%, 20%, or 50% of the enforcement standard as specified by statute based on the health-related characteristics of the particular substance. Ten percent is used for cancer-causing substances, 20% for substances with other health effects and 50% for substances having aesthetic or other public-welfare concerns.

The preventive action limit serves two purposes. First, the PAL must be used in design codes for facilities (e.g., landfill design) and management practices (e.g., pesticide use regulations) so that contamination is prevented through use of stringent designs. Regulatory agencies are required to review their existing design code regulations to assure that they conform to the PALs to the extent technically and economically feasible.

The second purpose of the PAL is to serve as a "trigger" for remedial actions. Exceeding a preventive action limit creates the possibility that some regulatory response may be necessary. Where a preventive action limit is attained or exceeded, the regulatory agency is required to evaluate the situation and take action necessary to reduce the concentration of the substance below the preventive action limit or at the lowest concentration feasible. When preventive action limits are exceeded, a regulatory agency may prohibit continuation of the activity, which is the source of the problem. However, to do so the agency would be required to meet specific statutory requirements. Preventive action limits are intended to provide regulatory agencies time to take preventive measures to ensure that the enforcement standard is not attained or exceeded.

Enforcement standards define when a violation has occurred. When a substance is detected in the groundwater in concentrations equal to or greater than its enforcement standard, the activity, practice or facility that is the source of the substance is subject to immediate enforcement action.

Unlike a PAL, when an enforcement standard has been attained or exceeded, a regulatory agency must prohibit the continuation of the activity from which the substance came, unless it is demonstrated to the agency that an alternative response will achieve compliance with the enforcement standard.